**Title:**

Influenza (flu) vaccination Data Analysis Project using PostgreSQL.

**Requirements:**

You will have a few flat files, load them into PostgreSQL and answer the following important healthcare questions.

**Problem Statements:**

1. **Annual Flu Shot Statistics by Demographics:**
   * How many patients received a flu shot in the year 2022, broken down by age, race, and county?
   * Answer query:

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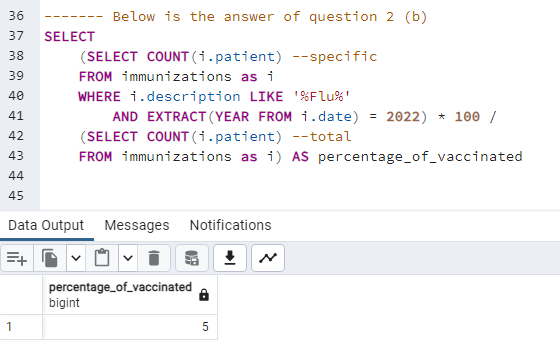
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1. **Percentage Analysis of Flu Shots:**
   * What is the percentage of patients who received a flu shot in 2022 compared to the total number of patients, stratified by age, race, and county?
   * Answer query:

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* + What is the overall percentage of patients who received a flu shot in 2022 across the entire hospital or clinic?
  + Answer query:

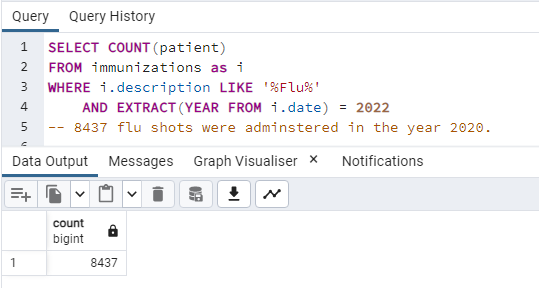


1. **Monthly Cumulative Flu Shot Data:**
   * How many flu shots were administered each month during the year 2022?
   * Answer query:

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1. **Total Annual Flu Shots:**
   * What is the total number of flu shots given in the year 2022?
   * Answer query:

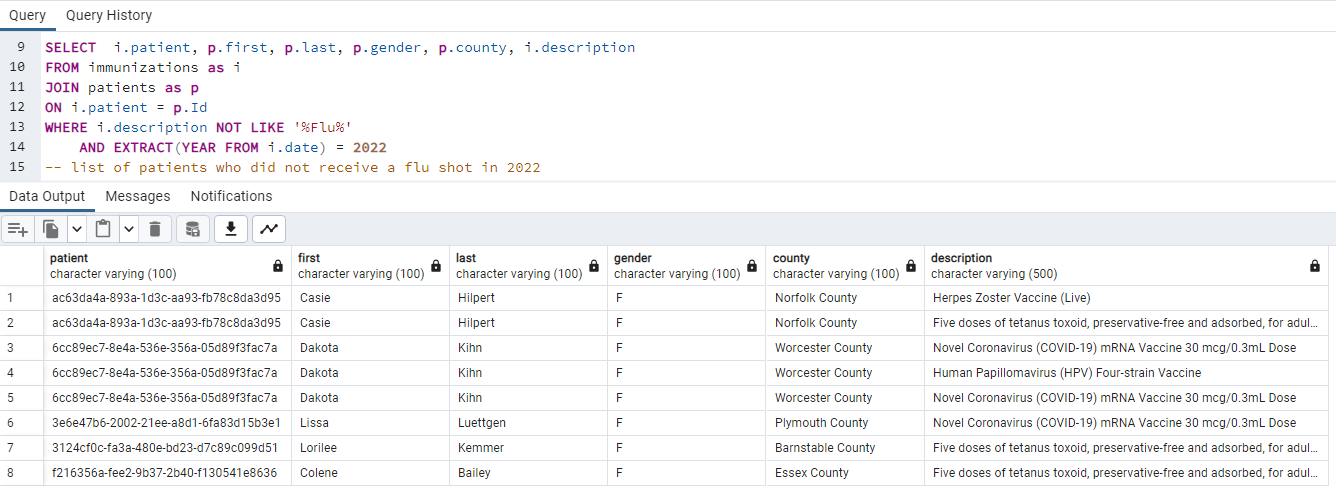


1. **Patient Lists for Flu Shot Analysis:**
   * Can you provide a list of patients who received a flu shot in 2022?
   * Answer query:

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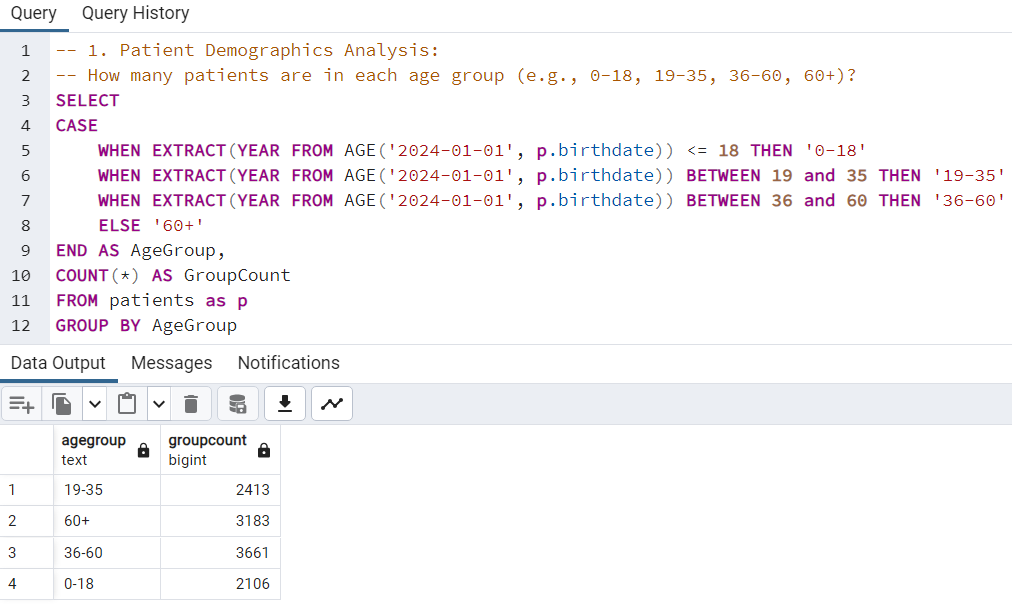
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* + Can you also provide a list of patients who did not receive a flu shot in 2022?
  + Answer query:



**More Questions that should be answered:**

1. **Patient Demographics Analysis:** How many patients are in each age group (e.g., 0-18, 19-35, 36-60, 60+)?



1. **Geographical Distribution:** What are the top 5 cities with the highest number of patients?

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1. **Healthcare Utilization Patterns:** How many encounters does each patient have on average?
   1. **There are 2 meanings of the question:** I’ve solved both.
      1. This means that how many encounters does each patient have:A screenshot of a computer

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      2. This shows how many encounters does each patient have on average, so the answer will be just one for all patients and not different for each patient: A screenshot of a computer

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2. **Condition Prevalence:** What are the top 10 most common conditions among patients?

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1. **Healthcare Costs Analysis:** What is the average healthcare expense per patient?

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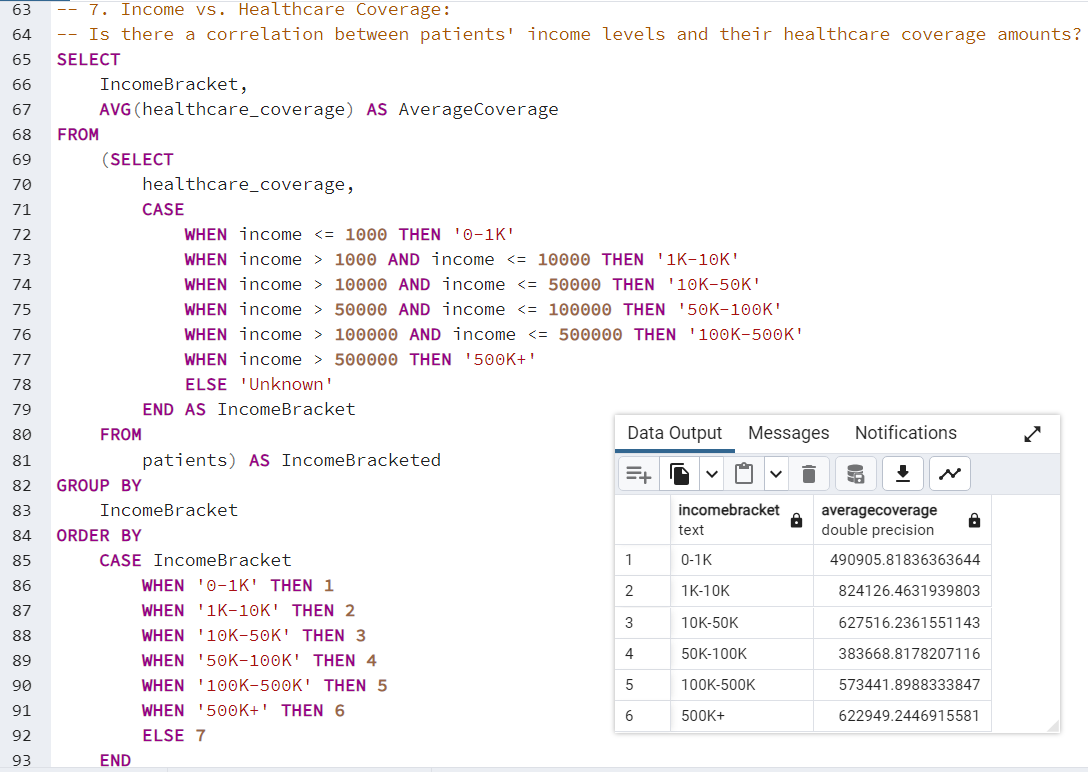
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1. **Encounter Analysis:** Which type of encounters (as per **ENCOUNTERCLASS**) is most common?

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1. **Income vs. Healthcare Coverage:** Is there a correlation between patients' income levels and their healthcare coverage amounts?

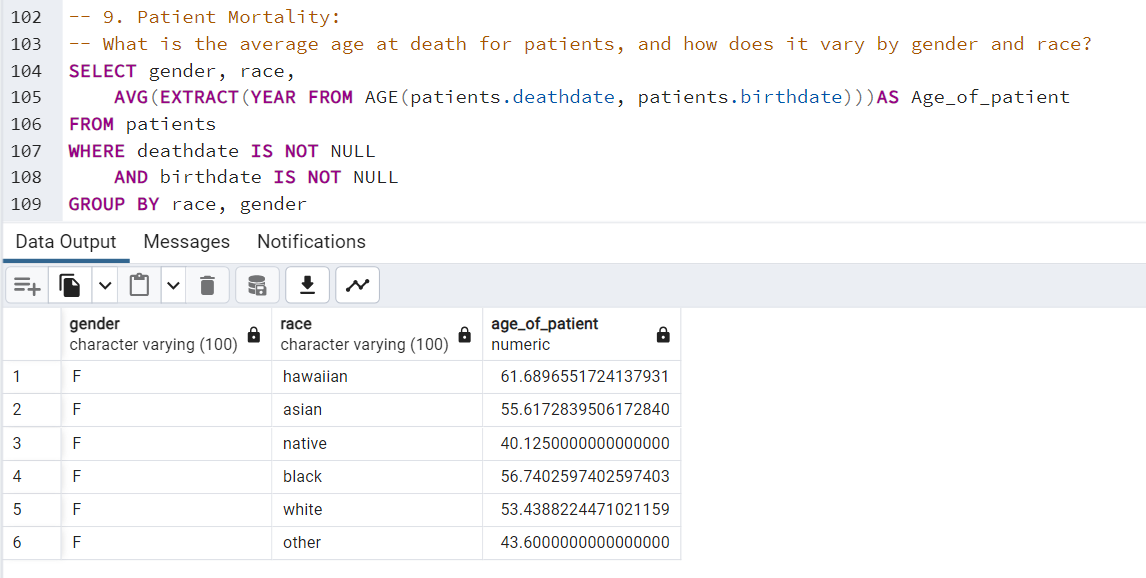


1. **Immunization Records:** How many patients have received each type of immunization?

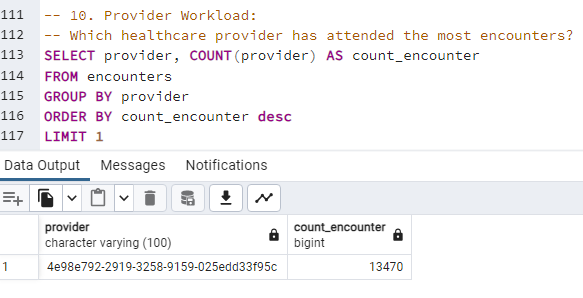
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1. **Patient Mortality:** What is the average age at death for patients, and how does it vary by gender and race?



1. **Provider Workload:** Which healthcare provider has attended the most encounters?



1. **Encounter Costs Analysis:** What are the average total claim costs and payer coverage for each encounter class?

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1. **Marital Status and Health:** Is there a notable difference in the number of healthcare encounters between married and single patients?

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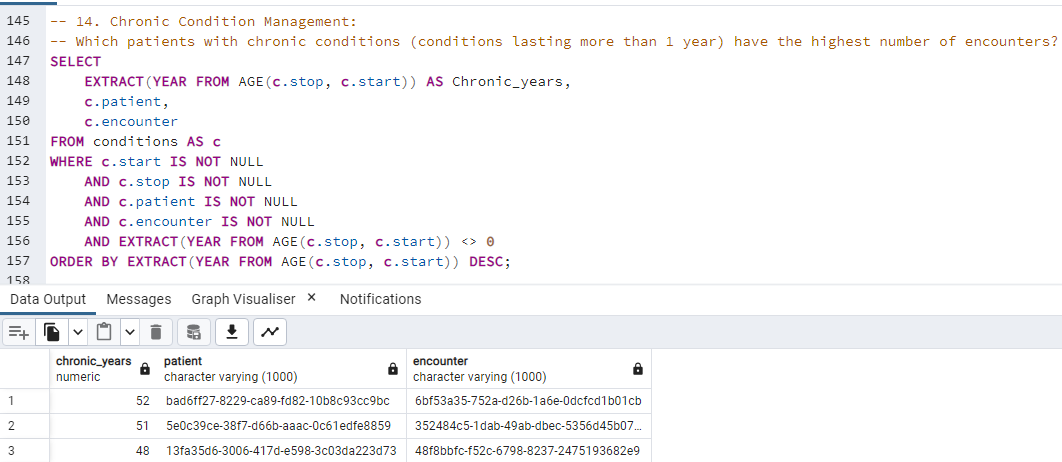
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1. **Race and Ethnicity in Healthcare:** How do healthcare expenses vary across different races and ethnicities?

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1. **Chronic Condition Management:** Which patients with chronic conditions (conditions lasting more than 1 year) have the highest number of encounters?



1. **Patient Coverage Gaps:** Identify patients with high healthcare expenses but low healthcare coverage.

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